CLAIMS

1. A print engine/controller configured to be coupled with others to drive an ink drop printhead comprising:

an interface at which to receive compressed page data;

image decoders to decode compressed image planes in the received compressed page data;

a half-toner/compositer to composite respective strips of the decoded image planes; and

a printhead interface to output the composite strip to a printhead

the printhead interface including:

a multi-segment printhead interface outputting printhead formatted data; and

a synchronization signal generator outputting a synchronization signal to couple print engine/controllers to synchronize their respective strips at the printhead.

2. A print engine/controller as claimed in claim 1 wherein the printhead interface accepts its own synchronization signal as a master controller to all print engine/controllers or that of another printhead controller as a slave.

3. A print engine/controller as claimed in claim 2 wherein printhead interface includes an input at which a signal determines if the print engine controller is a master controller or a slave.

4. A print engine/controller as claimed in any one of claims 1 to 3 wherein the halftoner/compositor scales input image planes under control of a margin unit set to establish print data for a strip of the image.

5. A print engine/controller as claimed in claim 1 with the addition of a tag encoder to calculate respective strips of a tag image plane.

6. A print engine/controller configured to be coupled with others to drive an ink drop printhead comprising:

a contone image decoder to decode any compressed continuous tone image planes in the received compressed page data;

a bi-level decoder to decode any compressed bi-level image plane and/or dither data in the received compressed page data;

a halftoner/compositor to composite respective strips of the decoded image planes including a dot merger unit controlled by a color mask to effect integration of the image planes with what inks are provided in the printhead; and

a printhead interface to output the composite strip to a printhead

the printhead interface including:

a multi-segment printhead interface outputting printhead formatted data; and

a synchronization signal generator outputting a synchronization signal to couple

print engine/controllers to synchronize their respective strips at the printhead.

7. A print engine/controller as claimed in claim 6 wherein the halftoner/compositor includes a margin unit to apply margin data to the respective image planes during the composite process to generate print data in strips.

8. An inkdrop printer with a printhead driven by multiple print engine/controllers, each print engine/controller comprising:

an interface at which to receive page data;

a half-toner/compositer to composite a strip of the page data; and

a printhead interface to output the composite strip to a segment of the printhead;

one printhead interface generating a synchronization signal to synchronize the print engine/controllers to drive the printhead at any one or more of higher speed, higher input resolution, higher number of color planes, higher outlet resolution or wider format.

9. A print engine/controller as claimed in claim 8 wherein a printhead interface accepts its own synchronization signal as a master controller to all print engine/controllers or that of another printhead controller as a slave.

10. A print engine/controller as claimed in claim 9 wherein the printhead interface includes an input at which a signal determines if the print engine controller is a master controller or a slave.

11. An inkdrop printer with a printhead driven by multiple print engine/controllers, the print engine/controllers including:

an interface at which to receive compressed page data;

a contone image decoder to decode any continuous tone image planes in the received compressed page data;

a bi-level decoder to decode any bi-level image planes and dither data in the received compressed page data;

a half-toner/compositer to composite any bi-level image plane over any continuous tone image plane wherein the page data in the image planes is scaled under control of a margin unit to establish data for a strip of the image;

a printhead driver to output the composited strips to a printhead; and

a printhead receiving strip form print data in parallel from the multiple engine/controllers.